WASHINGTON DEPARTMENT OF ECOLOGY
MAIL STOP 7600
OLYMPIA, WASHINGTON 98504

IN THE MATTER OF AIR EMISSIONS FROM:)
Port Townsend Paper Corporation)ORDER
100 Mill Road) No. 2892-05AQ
Port Townsend, WA 98368)First Modification

Order, No. 2892 05AQ was originally issued to Port Townsend Paper Corporation (PTPC) on August 10, 2006. The Order is being modified as follows:

1. The original Order contained Condition D.1 specifying SO_2 emission limits for Power Boiler #10 included in 40 CFR Subpart D be demonstrated using fuel receipts. The Environmental Protection Agency (EPA) determined Order Condition D.1 did not completely fulfill current Subpart D requirements. A satisfactory compliance demonstration method was developed and included in the PTPC Air Operating Permit (AOP). Thus, Condition D.1 is removed from the First Modification of Order No. 2892-05AQ.

2. Appendix A (PSD-I which was issued to PTPC on June 1, 1984) and Appendix B (Formulas and Emission Factors) were referenced in the original Order No. 2892-05AQ. Inadvertently they were not attached. They are properly attached to the First Modification of Order No. 2892-05AQ.

3. Administrative changes, including formatting and language to reflect that this is the First Modification of Order No. 2892-05AQ, are made.

The First Modification of Order No. 2892-05AQ ~~is Order **NO.2892** ~~is issued pursuant to authorities set forth in Chapter 70.94 RCW, including RCW 70.94.141(3), .152, .153, and .331; and WAC 173-400-110. Any conditions of the order issued pursuant to authorities other than those noted in the prior sentence, will cite the authority within the condition. The requirements set forth in this Amended Order describe specific air emission limitations and operating conditions, as well as methods, frequency and format for required monitoring and reporting. All regulations cited in this Order are those in effect on the date of Order issuance.

Background and Historical Context: Order No. 2892-05AQ~~This Order~~ ~~modifies~~ modified the previous order DE 00AQIS-131 which consolidated several individual orders and amended portions of the air quality requirements applicable to the kraft pulp and paper mill (Mill) operated by Port Townsend Paper Corporation (PTPC). The principal action is the exclusion from this order of applicable requirements stipulated by regulation. Their presence in any order is unnecessary but their inclusion in any order creates a duplicative and stand-alone requirement. The underlying effort is to continue to modernize and streamline air orders to better accommodate incorporation into Title V air operating permits.

Previously issued Order DE 00AQIS-131 superseded and repealed the orders below:

ORDER No. DE 93-AQI063 issued July 6, 1993 - Order limiting emissions from the recovery furnace corresponding with issuance of a Certificate of Emission Reduction Credit.

ORDER No. DE 92-AQI057 issued August 13, 1992 and rescinded~~—~~ July 6, 1993.

ORDER No. DE 88-195 issued May 31, 1988 - NOC Order requiring installation of a Waterloo scrubber at Power Boiler #10 and setting appropriate conditions.

ORDER No. DE 87-107 issued January 27, 1987 - Order requiring demonstration of backup boiler start up in compliance with opacity limits.

ORDER No. DE 85-209 issued March 14, 1985 - Order requiring monthly particulate source testing at Power Boiler #10.

ORDER No. DE 84-390 issued June 20, 1984 - Order and NOC limiting mill emissions and emissions associated with a mill expansion to produce approximately 650 tons per day of unbleached kraft pulp and paper. Appendix A of the Order is PSD-I, which addresses PSD issues associated with the mill expansion. PSD-I has not been modified and is included as Appendix A of this Order.

ORDER No. DE 82-291 issued July 1, 1982 - Order concerning noncondensible gas (NCG) venting.

All other ORDERs issued prior to 1984.

The previously issued Orders superseded and repealed by Order DE 00AQIS-131 remain superseded and repealed.

Order 00AQIS-131 amended some of the existing non-PSD air operating requirements. The requirements were modified or eliminated because:

1. limits were redundant,
2. limits were less stringent than those found in another order,
3. measurement units were not consistent,
4. requirements/studies were related to time periods which have passed, and/or
5. requirements were no longer applicable.

Changes of types 1, 2, and 3 described above were found to be environmentally insignificant. Changes of types 4 and 5 described above were found to be acceptable because the requirements were obsolete.

Order 05AQIS-2892 amends previously issued Order 00AQIS-131 by removing those conditions which are restatements of existing applicable regulations. The regulations are still applicable and the conditions are still in the Title V operating permit. The conditions were eliminated because:

1. Their absence from this order makes them no less applicable but their presence creates an unintended potential mandate. If the underlying regulation changed but the original regulatory wording was present in an order, both requirements would be applicable.

With issuance of this First Modification of Order No. 2892-05AQ, the conditions of Order 00AQIS-131 and the conditions of the original Order No. 2892-05AQ are no longer applicable.

CONDITIONS:

1. The emissions limits specified in Table 1 shall not be exceeded.

2. The emission limits shall be monitored at the monitoring frequency and with the compliance test methods specified in Table 1. The department may approve alternate compliance test methods that are of equivalent stringency for any air pollutant. Compliance monitoring frequency may be adjusted by Ecology depending on compliance history.

3. All periodic emission sampling shall be done at equipment operating rates which are equal to or greater than the average monthly rate of the previous month.

4. Sampling ports and platforms must be provided for each affected source after the final pollution control device. The ports must meet the requirements of Reference Method 1 of 40 CFR, Part 60, Appendix A. Other arrangements may be acceptable if approved by the department prior to installation. Adequate permanent and safe access to the test ports must be provided.

5. Averages over time specified in emission limits shall be determined by the arithmetic mean of measurements taken during the specified time period.

   Compliance with the annual limits for particulates, SO_2, and TRS shall be determined by adding the annual emissions from the recovery furnace, smelt dissolver tank, lime kiln, and power boiler Nos. 2 and 10. Annual emissions from an emission unit for measured parameters shall be calculated using the average of test results collected during the year. Annual emissions from an emission unit for unmeasured parameters shall be calculated using emission factors and production data.

6. The PTPC continuous emission monitoring quality assurance plan must be updated and submitted to Ecology within 180 days from the effective date of this order. Ecology may require the continuous emission monitoring quality assurance plan to be periodically updated in the future. The updates shall satisfy 40 CFR, Part 60, Appendix F.

7. Data required to demonstrate compliance with emission limits in Table 1 shall be reported in written form to the Washington Department of Ecology Industrial Section or its authorized representative at least monthly (unless a different testing and reporting schedule has been approved by Ecology). The report shall be submitted in conformance with the time requirements included in WAC 173-405, but in no case later than thirty days after the end of the calendar month being reported. The report shall be in a format approved by Ecology. Report contents shall include but not be limited to the following:

   a. The average daily production of air dried unbleached pulp from chips and from the OCC process.
   b. Process or control equipment operating parameters when required to demonstrate compliance with a limit.
   c. The daily maximum and average concentration, in the units of the standard, for each pollutant monitored on a continuous basis.
   d. The duration and nature of any monitor down-time.
   e. Results of any monitor audits or accuracy checks.
   f. Results of any stack tests using approved Ecology or EPA test methods with acceptable QA/QC.

   For each occurrence of monitored emissions or process parameters in excess of the standard the report shall include the following:

g. The time of the occurrence.
h. Magnitude of the emission or process parameters excess.
i. The duration of the excess.
j. The probable cause.
k. Any corrective actions taken or planned.
l. Any other agency contacted.
m. Signature of responsible person.

8. In addition to source test data submitted for the recovery furnace, the average opacity occurring during the source test run shall be reported with the results of the source test. Sufficient data from the source test shall be submitted to allow Ecology to make the calculations leading to the source test results. Such data shall be reported for each source test run. PTPC shall establish a means to determine the flow split between the ESPs. During each source test the flow split will be determined using this method and will be reported with the source test data.

   Black liquor flow rate, density, and percent solids shall be averaged and reported for the period of time of each source test run. As an alternative, the company can estimate the total solids fired during the source test run. Primary and secondary voltage and current, and spark rate (if available) for each TRC unit shall be logged every hour during the source test. This data shall be reported with the source test data.

9. This Condition, issued pursuant to authorities set forth in WAC 173-405-040(4), is not federally enforceable under the federal Clean Air Act. All noncondensible gases from the digesters, evaporators, and the condensate stripper system shall be continuously treated to reduce the emission of TRS equal to the reduction achieved by thermal oxidation in a lime kiln.

   To provide continuous treatment:
   - the NCG collection and treatment system shall be properly operated and maintained at all times,
   - venting shall be minimized, and
   - venting necessary for safe/proper system operation and maintenance shall be less than 10 hours per month.

   Report venting duration and cause in the monthly air report.

10. Wind speed and direction shall be continuously measured and recorded. Any change in location of the sensory equipment shall be approved in advance by the department. Monitoring records shall be maintained at the mill.

11. Operating and maintenance manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed and followed. Copies of the manuals shall be available to the department. Emissions that result from a failure to follow the requirements of the manuals may be considered proof that the equipment was not properly operated and maintained.

12. Operation of the equipment must be conducted in compliance with all data and specifications submitted as part of PSD and NOC applications unless otherwise approved by the department.

13. Ecology may modify conditions contained herein based on air quality, emissions monitoring results, or upon the request of PTPC.

14. Power Boiler #10 shall comply with all the applicable requirements of the new source performance standards for fossil-fuel-fired-steam generators in 40 CFR Part 60 Subpart D.

Nothing in this order shall be construed as obviating compliance with any requirement of law other than those imposed pursuant to the Washington Clean Air Act and rules and regulations thereunder.

Failure to comply with this Order may result in the issuance of civil penalties or other actions, whether administrative or judicial, to enforce the terms of this Order.

Authorization may be modified, suspended or revoked in whole or part for cause including, but not limited to, the following:

1. Violation of any terms or conditions of this authorization.

2. Obtaining this authorization by misrepresentation or failure to disclose fully all relevant facts.

The provisions of this authorization are severable and, if any provision of this authorization, or application of any provision of this authorization to any circumstance, is held invalid, the application of such provision to their circumstances and the remainder of this authorization, shall not be affected thereby.

DATED this ?~~10th~~ day of ??~~August, 2006~~ at Olympia, Washington.

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~~Carol P. Kraege, P.E.~~Merley F. McCall
Industrial Section ~~Supervisor~~Manager
~~Solid Waste & Financial Assistance Program~~

Table 1 – Emission Limits and Monitoring and Reporting Requirements

Note: Appendix B contains emission estimate algorithms for those requirements for which the Reference Method itself does not directly result in an emission estimate.

A. Recovery Furnace

	Parameter	Limit (shall not exceed)	Monitoring & Reporting
A.1a	Particulate	0.08 gr/dscf @ 8% O_2, one hour average.	Sample monthly (see A.7) using EPA Method 5 except that the permittee may conduct one test of at least one hour in lieu of three 1-hour tests. Report test results monthly. See Condition A.6 for minimum O&M requirements intended to indicate compliance with the particulate limit.
A.1b	Particulate	0.05 gr/dscf @ 8% O_2, one hour average. This Condition, issued pursuant to authorities set forth in WAC 173-400-131, is not federally enforceable under the federal Clean Air Act.	Sample monthly (see A.7) using EPA Method 5 except that the permittee may conduct one test of at least one hour in lieu of three 1-hour tests. Report test results monthly. See Condition A.6 for minimum O&M requirements intended to indicate compliance with the particulate limit.
A.4	TRS	5.0 ppm @ 8% O_2, 24 hour average. This Condition, issued pursuant to authorities set forth in WAC 173-405-040(1)(c), is not federally enforceable under the federal Clean Air Act.	Monitor continuously using an approved CEM that conforms to 40 CFR 60, App. F and App. B, Perf. Spec. 5. Report excursions monthly.
A.5	O_2	no limit - required to correct TRS data	Monitor continuously using an approved CEM that conforms to 40 CFR 60, App. F and App. B, Perf. Spec. 3.
A.6	Operating Parameters	No limit – report defined source test parameters	Report the following parameters in the monthly air report: 1. Average opacity during each source test run. 2. Sufficient data to allow verification of source test results. 3. Air flow split between ESP chambers. 4. Average black liquor flow rate, density, and % solids during source test. 5. As alternative to #4, PTPC can estimate the total solids fired during the source test run. 6. Log, every hour during the source test, primary and secondary voltage and current, and spark rate (if available) for each TRC unit.

C. Lime Kiln

	Parameter	Limit (shall not exceed)	Monitoring & Reporting
C.4	TRS	8 ppm @ 10% O_2, 12 hour average.	Monitor continuously using an approved CEM that conforms to 40 CFR 60, App. F and App. B, Perf. Spec. 5. Report excursions monthly.
C.5	O_2	no limit - required to correct TRS data	Monitor continuously using an approved CEM that conforms to 40 CFR 60, App. F and App. B, Perf. Spec. 3.

~~**D. Power Boiler #10**~~

~~D.1. Compliance with 40 CFR Subpart D SO_2 emission limits shall be met using fuels receipts until such time as:~~

~~a. 40 CFR 60.45 describing a fuel monitoring program is completed, or~~

~~b PTPC receives EPA approval of an alternative monitoring method. Before using this option, PTPC shall submit a copy of the EPA approval letter with the approved alternative monitoring program and reporting requirements to the Department.~~

~~Should a or b occur, the SO_2 monitoring requirement will be revised to reflect the EPA requirements.~~

F. Millwide Limits

	Parameter	Limit (shall not exceed)	Monitoring & Reporting
F.1	Particulate	729 tons/yr	Monitoring and reporting method 1.
F.3	SO_2	1300 tons/yr	Monitoring and reporting method 1.

Monitoring and reporting method 1:

Compliance determined by adding calendar year emissions from all applicable units*. Emissions from a unit for which the pollutant is measured shall be calculated using the average of test results collected during the year. Emissions from a unit for which the pollutant is not measured shall be calculated using emission factors and production data or fuel consumption. Report annually within 30 days of the end of the calendar year.

* Applicable units for the particulate and SO_2 limit include the recovery furnace, smelt dissolver tank, lime kiln, and power boiler #10. Applicable units for the TRS limit include the recovery furnace, smelt dissolver tank, lime kiln, power boiler #10, evaporators, and washers.

Appendix A - PSD-I

JOHN SPELLMAN
Governor

DONALD W. MC
Director

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Mail Stop PV-11 • Olympia, Washington 98504 • (206) 459-6000

June 1, 1984

APPLICATION OF:	)	No. PSD-I
	)	
Port Townsend Paper Corporation	)	FINAL DETERMINATION OF
P. O. Box 3170	)	APPROVAL FOR APPLICATION
Port Townsend, Washington 98368	)	TO CONSTRUCT

Pursuant to department regulations for the Prevention of Significant Deterioration of air quality (PSD) as set forth in WAC 173-403-080 and based on the application submitted by the Port Townsend Paper Corporation and its predecessor, on August 23, 1983 and as amended October 25, November 10, and December 6, 1983 and January 11, 1984, the department now finds as follows:

FINDINGS

1. The Port Townsend Paper Corporation (hereafter referred to as the company) proposes to modernize its kraft pulp and paper mill at Port Townsend, in three phases.

2. After completion of the three phases of the construction project there would be a net significant increase of emissions of total suspended particulates (TSP), oxides of nitrogen (NOX) and CO. There would be less than significant increases in volatile organic compounds (VOC) and total reduced sulfur (TRS). There would be a decrease in emissions of sulfur dioxide (SO_2)

3. The proposed project is located in an area designated as Class II under Section 162(b) of the Federal Clean Air Act.

Appendix A (continued) - PSD-I

4. The proposed project is located in an area that is in attainment for all criteria pollutants.

5. Modeling analyses of TSP have been conducted and demonstrate that (a) the increase in emissions will not cause or contribute to the violation of any National Ambient Air Quality Standard (NAAQS) (b) the increase in emissions will not exceed the PSD increment for Class II areas at the point of maximum impact, and (c) the increase in emission will not exceed the PSD increment for the Class I area that is closest (34 km) to the project.

6. The proposed project will not degrade visibility in any Class I area.

7. Modeling analyses of NOX have been conducted and demonstrate that the increase in emission plus the background levels totals far less (about 20 percent) than the annual NAAQS for NOX.

8. Modeling analyses of CO have been conducted and demonstrate that the increase in emissions plus the background level totals far less than either the 1-hour or 8-hour NAAQS for CO.

9. As a part of the application, the company proposes to extend the height of the lime kiln stack from 24 to 31 meters and to extend the height of the hog fuel boiler stack from 41 to 53 meters. These extensions are not required for expansion of production from the present 450 tons/day to 650 tons/day unbleached pulp, which is the expansion envisioned by the first two phases of construction. The third phase of construction or any expansion of production beyond 650 tons/day will require that the extensions be in place in order to meet air quality requirements.

10. A determination of Best Available Control Technology (BACT) is not required per PSD regulations. (See Technical Analysis Document for explanation.) However, BACT is addressed in the New Source Review (NSR) made pursuant to WAC 173-403-050.

Appendix A (continued) - PSD-I

Accordingly, it is hereby determined that subject to the conditions set forth herein, the company will be permitted to modernize and operate its kraft pulp and paper mill at Port Townsend, Washington.

APPROVAL CONDITIONS

1. Plant wide emissions of the below-named pollutants shall not exceed the limits stated.

Pollutant	Tons/Year	#/Day
TSP	1,007	5,590
NOX	645	3,580
CO	6,204	34,500
VOC	182	1,010
TRS	31.7	176

2. Emissions of sulfur dioxide from the recovery furnace shall not exceed 200 parts per million.

3. The height of the lime kiln stack shall be raised to no less than 31 meters and the height of the hog fuel boiler stack shall be raised to no less than 53 meters before production may exceed 650 tons/day unbleached pulp.

4. This approval shall become void if on-site construction is not commenced within eighteen (18) months after receipt of the approval or if on-site construction, once initially commenced, is discontinued for a period of eighteen (18) months.

5. As approved and conditioned by this determination any construction, modification or operation of the modified plant shall be in accordance with the application which resulted in this determination. Moreover, any such activity which is undertaken by the company or others, in a manner which is inconsistent with this determination shall be subject to department enforcement under applicable regulations. Nothing in this determination shall be construed to relieve the company of its obligations under any state or federal laws or regulations

Appendix A (continued) - PSD-I

6. The company shall notify the department in writing of the commencement of construction and the start up of each of the three phases of construction within thirty (30) days of the date of their occurrence.

Lynda L. Brothers
Assistant Director

Appendix B - Formulas for Emission Calculations

These emission estimate algorithms set forth the manner by which emissions are calculated for those requirements for which the Reference Method itself does not directly result in an emission estimate. The Permittee may use an equivalent alternative method with written approval from Ecology.

Permit Condition B.1

$$\frac{lbs}{ton\,BLS} = (concentration \times air\ \ flow\,rate \times unit\ \ conversion\ \ factor \times time\ adjustment) \div tons\ \ BLS\ burned$$

Concentration is measured using a reference method to measure particulate concentrations in gr/dscf.
Air Flow Rate must be representative of operation. Air flow measured during the test or a factor from the federal register may be used.
Unit Conversion Factor is case specific. For particulate conversions 1 lb = 7,000 grains.
Time Adjustment is case specific and is dependent on the flow rate time unit. The measured unit is multiplied by the conversion factor to attain the desired time unit.
Tons BLS Burned is the tons of black liquor solids burned during the adjusted time period.

Permit Conditions D.1, D.3, and D.4

$$\frac{lbs}{mmBtu} = (concentration \times air\ \ flow\,rate \times unit\ \ conversion\ \ factor \times time\ adjustment) \div mmBtu\ \ applied$$

Concentration is measured using a reference method or continuous monitor. Particulate concentrations are in gr/dscf and chemical concentrations are in ppm.
Air Flow Rate must be representative of operation. Air flow measured during the test or a factor from the federal register may be used.
Unit Conversion Factor is case specific. For particulate conversions 1 lb = 7,000 grains. For ppm measurements, molar mass and molar volume for the chemical being measured are used.
Time Adjustment is case specific and is dependent on the flow rate time unit. The measured unit is multiplied by the conversion factor to attain the desired time unit.
mmBtu Applied is the millions of Btu's in the fuel burned during the adjusted time period.

Permit Conditions F.1, F.2, and F.3 (for directly measured emissions),

$$\frac{lbs}{day} = concentration \times air\ \ flow\,rate \times unit\ \ conversion\ \ factor \times time\ adjustment$$

Appendix B (continued) - Formulas for Emission Calculations

Concentration is measured using a reference method or continuous monitor. Particulate concentrations are in gr/dscf and chemical concentrations are in ppm.

Air Flow Rate must be representative of operation. Air flow measured during the test or a factor from the federal register may be used.

Unit Conversion Factor is case specific. For particulate conversions 1 lb = 7,000 grains. For ppm measurements, molar mass and molar volume for the chemical being measured are used.

Time Adjustment is case specific and is dependent on the flow rate time unit. The measured unit is multiplied by the conversion factor to attain the desired time unit.

$$\frac{tons}{year} = \sum \frac{lbs}{day} \ for\ the\ calander\ \ year \times unit\ \ conversion\ \ factor$$

Unit Conversion Factor is 1 ton = 2000 lbs.